

IN THE CLAIMS:

Please amend the claims as follows:

Claim 1 (Currently Amended): A semiconductor photodetector comprising a semiconductor substrate formed with a plurality of pn junction type photodiodes on a side of the semiconductor substrate opposite from an incident surface of the semiconductor substrate for receiving light to be detected;

wherein a pn junction separate region including a pn junction, which is separate from the photodiodes, is formed between photodiodes adjacent each other in the plurality of photodiodes on the side of the semiconductor substrate opposite from the incident surface of the semiconductor substrate.

Claim 2 (Currently Amended): A semiconductor photodetector according to claim 1, wherein the pn junction separate region is formed so as to surround the photodiode as seen from the opposite side.

Claim 3 (Currently Amended): A semiconductor photodetector according to claim 1, wherein a high-concentration impurity semiconductor region having the same conductive conductivity type as that of the semiconductor substrate is formed between the pn junction separate region and the photodiode on the opposite side of the semiconductor substrate.

Claim 4 (Original): A semiconductor photodetector according to claim 3, wherein the high-concentration impurity semiconductor region is formed so as to surround the photodiode as seen from the opposite side.

Claim 5 (Currently Amended): A semiconductor photodetector according to claim 4, wherein an electrode electrically connected to the ~~pn junction~~ the separate region and high-concentration impurity semiconductor region is formed on the opposite side of the semiconductor substrate; and

wherein the electrode is connected to a ground potential.

Claim 6 (Currently Amended): A semiconductor photodetector according to claim 4, wherein a first electrode electrically connected to the ~~pn junction~~ separate region and a second electrode electrically connected to the high-concentration impurity semiconductor region are formed on the opposite side of the semiconductor substrate;

wherein the first and second electrodes are connected to respective ground potentials while being electrically insulated from each other.

Claim 7 (Currently Amended): A semiconductor photodetector according to claim 1, wherein the semiconductor substrate is of a first conductive conductivity type; and wherein the plurality of photodiodes and ~~pn junction~~ separate region are constituted by a second conductive conductivity type impurity semiconductor region and the semiconductor substrate.

Claim 8 (Currently Amended): A semiconductor photodetector according to claim 3, wherein the semiconductor substrate and high-concentration impurity semiconductor region are of a first ~~conductive conductivity~~ type; and wherein the plurality of photodiodes and ~~pn junction~~ ~~separate~~ region are constituted by a second ~~conductive conductivity~~ type impurity semiconductor region and the semiconductor substrate.

Claim 9 (Original): A semiconductor photodetector according to claim 1, wherein the opposite side of the semiconductor substrate is formed with respective electrodes, each including a bump electrode, electrically connected to the plurality of photodiodes;

the semiconductor photodetector further comprising a support member formed with respective electrode pads, formed on a side facing the semiconductor substrate, corresponding to the plurality of photodiodes; the plurality of photodiodes being electrically connected to the electrode pads corresponding thereto in the support member by way of the respective bump electrode.

Claim 10 (Original): A radiation detecting apparatus comprising the semiconductor photodetector according to claim 1; and

a scintillator, positioned on the incident surface side of the semiconductor substrate, emitting light in response to a radiation incident thereon.